

A STUDY OF THE RELATIONSHIP
BETWEEN
INTELLIGENCE AND GENERAL INFORMATION
OF
SOME DELHI SCHOOL STUDENTS

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INTRODUCTION

An outstanding fact of modern life is the increasing need of information in all the spheres of life. There is a constant need for general information essential in the running of the home as well as for the smooth running of the everyday business of life. Today, more than ever before, it has become necessary for everyone to know something about everything before he knows everything about something.

The level of general information of the pupils of our schools, apart from what is formally taught in the classroom is alarmingly low. This is true not only of the school boys and girls but also in the case of adults. In newspapers we quite often read the funny and stupid answers given by candidates at the competitive examinations to questions calling for general information. This state of affairs is indeed deplorable. An important reason for this is the fact that our pupils fail to use to the best advantage the possible sources of getting general information. There are several factors - personal, psychological (including temperamental) and situational which contribute to the general knowledge of our boys and girls. Among the sources of general information are educational environment including the home, the relatives, their social relationships and the geographical, cultural location and its implications; degree of schooling; cultural predilections; social groups outside the family; radio; movies; television; library facilities. In addition to these, natural endowment and interest or motivation in a particular field have a far-reaching influence on the amount of information one collects.

PURPOSE OF THE STUDY

The present study has been undertaken to investigate (the extent to which general intelligence is contributive to the general information

(not formally given in the school) of the students of higher secondary schools of Delhi. To put in other words, the purpose of the study is to test the commonsense hypothesis that the more intelligent the child, the greater, other things being equal, will be his stock of general information.

Intelligence undoubtedly is an important factor that directly helps children obtain general information. Those who are intelligent have been found to be quite alert and readily pick up information from all possible sources. As a matter of fact, questions on general information form an essential part of some of the well-known intelligence tests such as the Wechsler Bellevue Scale. Intelligence tests, however, are much wider than general information tests for the former also include tests on comprehension, vocabulary, similarities and differences, memory for digits and words, absurdities, reasoning and so on. (General information implies knowledge of ourselves and our history; of the universe and the world in which we live; of flowers and animals; of the things we do and use; of science and invention; of the arts; of what is familiar and of what is strange and distant.) These things are partly measured by intelligence tests also. This shows that intelligence and general information are closely related. "Intelligence may be looked upon as a function of natural endowment unfolding in a process of maturation, in the course of which, if the functioning of the individual is unhampered, it will under a process of picking up information of facts and knowledge of relationships." ¹

It seems necessary to point out that the effects of other factors

such as social environment, temperamental factors and the like on general information could not be investigated in the present study as it was much restricted by lack of time. Further research on a larger scale would undoubtedly lead to valuable and interesting conclusions.

METHOD AND PROCEDURE

Development of the Test: The first problem in carrying out the investigation was to prepare a test of general information. The objectives of general information were discussed with five teachers of higher secondary schools. As this subject was not included in the school curriculum, opinions were divergent. However, the following objectives were formulated.

To enable the pupils to have:

- (a) an awareness of the movements in social, economic, political, cultural, scientific and industrial fields;
- (b) an overall acquaintance with the pressing problems of the immediate and remote environment;
- (c) a smattering of knowledge of facts other than those directly learned under a course of study or any other pressure of necessity.

A list of 158 facts to be elicited from the pupils of classes IX, and XI was prepared. On the basis of that, a test containing 90 items was constructed. These items fell under five major categories. There were 15 items each pertaining to scientific, historical, geographical, political and civic knowledge. The rest of the 30 items were about spot stage and screen, important personalities, music, art, weights and measures and were termed miscellaneous items. The items were of two types - 45 of the multiple choice type calling for recognition of the correct response and 45 of the completion type calling for the recall of the correct

items were presumably not formally taught in the classroom. In the case of items related to scientific knowledge, it was not wholly possible to completely exclude the facts which the pupils learned from their textbook

The questions in each type were arranged in order of difficulty - from easy to difficult - by the investigator. This, however, was provisional because in advance of an actual try-out it is difficult to determine anything more than a rough estimate of the true difficulty order of the items.

The investigator avoided any regular sequence in the patterns of responses lest the pupils should get the clue by discovering that sequence. In order to familiarize the examinees with the technique of answering the items, one solved example was given immediately after the set of directions for each type.

The test itself was introduced with general instructions on the title page. These, as well as the instructions for the sub-sections, were couched in precise, simple and clear language.

Before the actual try-out the investigator wanted to fix the time limit for the whole test. To do this the test was given to 9 students, three each of classes IX, X and XI. They were asked to do as many items as they could and as quickly as was possible without sacrificing accuracy. The time they took was between 40 and 45 minutes. Accordingly, a time limit of 45 minutes was fixed for the test. No time limit was fixed for the sub-sections. A copy of the test is appended (Appendix I).

The investigator prepared an answer key a copy of which is appended (Appendix II).

Administration of the Test: The test was then given for a try-out. It was preceded by an introductory talk by the investigator which was

intended to establish rapport between him and the students and to eliminate as far as possible, the effect of fear of examination in general and of the novelty of the objective test in particular. The investigator said to the students: "We are going to engage ourselves in a game which is just as interesting as solving riddles. The only difference in this game and solving riddles is that in the latter you have to give the answers orally while in this case you will be required to give the answers in writing. It is to be seen who does this work quickly and correctly." The investigator then put three questions orally to the students: What is the first line of our National Anthem? Who is known as the flying Sikh? Who is the President of the United States of America? It was noticed that the pupils' interest was sufficiently ^{aroused} ~~ensured~~ and they were then given the test.

The subjects for the try-out consisted of 96 boys and girls of classes IX, X and XI of two local higher secondary schools but unfortunately due to reasons which the investigator could not help, class XI was not adequately represented. The sample contained only 9 students of this class.

The objectivity of test items simplified the scoring. One mark was allotted to each item correctly answered. The data obtained were tabulated (Appendix III).

Item Analysis: The percentage of the examinees doing each item correctly gave the difficulty value of each item. Items answered correctly by less than 15% or by over 85% were considered too difficult or too easy respectively and hence were rejected. The items affected by this principle are given below:

3, 17, 21, 26, 27, 28, 32, 36, 37, 41, 42, 45, 48, 55,
57, 62, 65, 66, 68, 72, 77, 78, 79, 81, 85 and 86.

To this list of discarded items were added items showing a poor dis-

validation was adopted. The 96 answer-books were divided into 3 groups - 32 in each group according to the total number of marks obtained by the examinees. The top 32 formed the upper group and the bottom 32 formed the lower group. The number of students doing each item correctly in these two groups was separately determined. The discriminative value of each item was calculated by the formula

$$\frac{N_1 - N_2}{N/3} \text{ where } N \text{ is the total number of cases,}$$

N_1 is the number of pupils in the upper group who correctly answered a particular item,

N_2 is the number of pupils in the lower group who correctly answered the same item.

Items with a discriminative value of less than 0.16 were arbitrarily considered as invalid items, that is, items which do not discriminate between good and bad examinees. The greater the excess of top group students over the bottom group students doing a particular item or, in other words, the greater the difference ($N_1 - N_2$), the better the discriminating power of the items. Items showing a negative difference (item Nos. 1, 12, 33 and 37) were considered as the worst items and were rejected outright. The items having poor discriminative value, excluding the too difficult or too easy items already checked off, are given below:

23, 34, 35, 40, 46, 49, 63, 69, 70, 71 and 89.

The following were the items which merited rejection on both the counts:

3, 17, 26, 32, 36, 37, 41, 42, 45, 55, 59, 62, 68,
72, 79, 81, 85 and 86.

The Item Analysis Summary Sheet is appended (Appendix IV).

Final Form of the Test: After item analysis the final form comprised 50 items. The distribution of these items under the 5 major categories referred to before was as follows:

Scientific Knowledge	5
Historical Knowledge	8
Geographical Knowledge	8
Political & Civic Knowledge	11
Miscellaneous Items	18

It was considered desirable to have uniformity in the number of item in the first four categories so that anyone category may not receive undue weightage. After due consideration, item Nos. 28, 48 and 82 pertaining to political and civic knowledge were eliminated. It was believed that had there been a larger number of pupils of class XI at the try-out, the performance of the group would have been far better on the items pertaining to scientific knowledge. Accordingly, three items - item Nos. 35 36 and 40 pertaining to scientific knowledge, inspite of having somewhat low discriminative values were included in the final form. The final form of the General Information Test thus contained 50 items and the distribution of these items in the 5 categories was as follows:

Scientific Knowledge	8
Historical Knowledge	8
Geographical Knowledge	8
Political & Civic Knowledge	8
Miscellaneous Items	18

The reliability coefficient of the original test computed by Kuder-

Richardson Formula 20 was .86 and of the final form by the same formula was .84.

In this final form again, with the help of the item analysis summary sheet, the 50 questions were arranged in order of difficulty - from the most easy to the most difficult. Necessary instructions for the whole test and for the sub-sections (there were 29 items of the multiple-choice type and 21 of the completion type) were framed on the same lines as was done in the original form that was given for a try-out. The time limit for the test was determined by administering it to 6 students, two each of classes IX, X and XI, who took 15 to 20 minutes to do the test. Accordingly, a time limit of 20 minutes was fixed for the test. Three hundred copies of the test were printed. A copy of the test appears in Appendix V. The scoring key can be seen in Appendix VI.

Administration of the two tests: The test of general information together with the C.I.E. group verbal test of intelligence, which is of 35 minutes duration, was administered to 263 boys and girls of classes IX, X and XI of three local higher secondary schools. It was considered more desirable to administer the tests on two different days than on the same day lest the pupils become fatigued and lose interest. Here again before the administration of the tests, an introductory talk was given as was done at the time of try-out, to establish rapport between the students and the investigator.

The following table represents the number of boys and girls who took the tests, the classes in which they studied and the schools from which they were drawn:

Number of boys or girls of different classes who took the test

Name of the School	Class IX	Class X	Class XI	Total
Government Boys Higher Secondary School, Kingsway Camp	37	28	28	93
Shafiq Memorial H.S. School, Bara Hindu Rao	57	12	-	69
Government Girls Higher Secondary School, Roopnagar	30	35	36	101
Total	124	75	64	263

For reasons beyond the control of the investigator, random selection of the subjects was not possible. The sample, as appears from the above table, consisted of 162 boys and 101 girls.

The scores obtained by the pupils on the two tests were tabulated. These may be seen in Appendix VII.

Results: Analysis and Interpretation

The Product Moment Coefficients of correlation between the scores obtained on the Intelligence and General Information tests by the total group, by the students of classes IX, X and XI separately and by boys and girls were computed. These are shown in the following Table.

Coefficients of Correlation between Intelligence Scores and General Information Scores.

Category of Subjects	N	r
Total Group	263	.57
Pupils of class IX	124	.63
Pupils of class X	75	.52
Pupils of class XI	64	.29
Girls	101	.47
Boys	162	.63

The coefficient of correlation between the scores on the two tests obtained by the total group .57, as should be expected, is not very high. This may be attributed to the fact that there are several other factors, besides intelligence, that affect general information. In spite of this, the coefficient of correlation is substantial to suggest that intelligence plays a fairly major role in determining the stock of general information at a pupil's command.

The coefficients of correlation between the scores on the Intelligence and the general information tests obtained by the pupils of classes IX and X are fairly high but in the case of XI class pupils, it is only .29.

The correlation in the case of girls is .47 while in the case of boys it is .63. From these results we may infer that the more intelligent the boys, the greater is the amount of their general information and vice-versa. This tendency is much less strong for the girls. The reason for this difference does not appear from the data. It will be worthwhile to explore if the questions are of equal interest to boys and girls. The

differences between the correlations also might possibly be in part accounted for by a difference in out-of-school environment and in part by a stronger vocational motive among boys to acquire and retain information in a wide variety of subjects.

The number of items correctly answered by each pupil under the five categories of the General Information test was also determined and the coefficients of correlation between the Intelligence Test scores and scores on these categories were computed by the Product Moment Method. The following table represents the correlations.

Coefficients of Correlation between Intelligence Scores and Scores on the 5 categories of General Information Test.

Categories of Test Items	r
Scientific knowledge	.41
Historical Knowledge	.35
Geographical Knowledge	.36
Political & Civic Knowledge	.41
Miscellaneous Items	.37

From the table it will appear that there is no appreciable difference among the coefficients of correlation between the intelligence scores and those on the 5 categories of the general information test. This suggests that intelligence is equally involved in determining the amount of general information acquired in each of these fields.

सन

२४- तीसरी पंचवर्षीय योजना ~~1956~~ में लागू की गई।

✓ २५- भारत के राष्ट्रपति का चुनाव हर ~~चौथे~~ वर्ष का होता है।

२६- मनुष्य का हृदय एक मिनट में ~~70~~ बार धड़कता है।

२७- सतीश गुजराल भारत का अत्यन्त प्रसिद्ध ~~कवि~~ है।

✓ २८- भारत के विधानानुसार आगामी आम चुनाव सन ~~1964~~ में होंगे।

२९- उस आँसू का नाम जिस से सूफान वाने का संकेत माहूम होता है ~~है~~।

३०- जब सूर्य चन्द्रमा और पृथ्वी एक ही सीध में होती हैं तो ~~पुनर्वसन~~ होता है।

✓ ३१- जो श्वास हम लेते हैं उसमें ~~ऑक्सीजन~~ गैस हमारे शरीर के लिए आवश्यक है।

३२- धर्मा की बून्दों में से होने वाले प्रकाश वर्ण के कारण ~~वायु~~ बनता है।

३३- प्लेग फैलने की सात निशानों ~~हैं~~।

३४- शम्भू महाराज ~~हिन्दू~~ कला के लिए प्रसिद्ध हैं।

✓ ३५- ऊँट को मरुस्थल का ~~जहाज~~ कहते हैं।

३६- रेडवर्ड जेनर ने ~~अपेक्षा~~ की बीमारी को रोकने के लिये वैक्सीन का आविष्कार किया।

३७- राष्ट्रपति कौन्ही जिला भवन में रहते हैं उसका नाम ~~है~~।

३८- जब सौड़ा वाटर की घोलत सौली जाती है तो ~~उसकी~~ गैस बाहर निकलती है।

✓ ३९- पृथ्वी अपनी धुरि पर ~~24~~ घंटे में एक बार घूम जाती है।

४०- भारत में व्यापार करने के लिए सर्व प्रथम ~~अंग्रेजों~~ जासि आयी।

४१- लेनिन ग्रेड का पुराना नाम ~~है~~ था।

४२- अमरीका की राज ~~है~~ ने लगाई।

४३- मुगल साम्राज्य का अन्तिम राजा ~~अकबर~~ था।

४४- चुम्बक ~~वायु~~ को अपनी ओर खींचती है।

४५- ब्रिटेन के प्रधान मन्त्री का नाम श्री ~~नेविल~~ है।



Appendix II

SCORING KEY

Part I

1. (i)
2. (iii)
3. (i)
4. (ii)
5. (ii)
6. (iv)
7. (ii)
8. (iii)
9. (ii)
10. (iii)
11. (iii)
12. (i)
13. (ii)
14. (ii)
15. (iii)
16. (iv)
17. (iii)
18. (iii)
19. (iv)
20. (iii)
21. (iv)
22. (iii)
23. (iv)
24. (iv)
25. (ii)
26. (ii)
27. (iii)
28. (i)
29. (ii)
30. (iv)
31. (i)
32. (iv)
33. (iii)
34. (iv)
35. (iv)
36. (iv)
37. (iii)
38. (ii)
39. (iv)
40. (ii)
41. (iii)

42. (iv)
43. (i)
44. (iv)
45. (iv)

- Part II

46. Bhari (heavy)
47. Chhota (short)
48. Maharashtra
49. Nartak (dancer)
50. Kanpur
51. Bhakra
52. Bartonon (vessels)
53. Peking
54. 1961
55. Malayalam
56. Paanch (5)
57. Shaturmurg (ostrich)
58. 1964
59. Bharat Ratna
60. Tensing
61. Dilip Kumar
62. Phephre (lungs)
63. Machhar (mosquito)
64. Lakshmi Bai
65. Brahmputra
66. Zero
67. Vinoba Bhave
68. 75
69. 1981
70. Paanch (5)
71. 72
72. painter
73. 1967
74. Barometer
75. Surya Grahan
(solar eclipse)

76. Oxygen
77. Indradhanush
(rainbow)
78. Choochon Ka Marna
79. Nritya (dance)
80. Jahaz (ship)
81. Chechak (small pox)
82. White House
83. Carbon dioxide
84. 24
85. Portuguese
86. Petrograde
87. Columbus
88. Bahadur Shah
89. Lohe (iron)
90. Macmillan

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Appendix III

Scores Obtained by Boys and Girls on the Original General Information Test arranged in descending order

S. No.	Score	S. No.	Score
1.	66	28.	38
2.	63	29.	38
3.	61	30.	38
4.	55	31.	38
5.	52	32.	38
6.	51	33.	37
7.	51	34.	37
8.	51	35.	37
9.	50	36.	37
10.	49	37.	37
11.	48	38.	36
12.	47	39.	36
13.	47	40.	36
14.	46	41.	36
15.	46	42.	36
16.	45	43.	36
17.	44	44.	36
18.	44	45.	36
19.	44	46.	36
20.	43	47.	35
21.	42	48.	35
22.	42	49.	35
23.	41	50.	35
24.	40	51.	35
25.	39	52.	35
26.	39	53.	35
27.	39	54.	34

S. No.	Score	S. No.	Score
55.	34	76.	28
56.	34	77.	28
57.	33	78.	28
58.	32	79.	28
59.	32	80.	27
60.	32	81.	27
61.	32	82.	27
62.	32	83.	27
63.	31	84.	26
64.	31	85.	26
65.	31	86.	27
66.	31	87.	25
67.	31	88.	25
68.	30	89.	24
69.	30	90.	24
70.	30	91.	24
71.	30	92.	24
72.	29	93.	23
73.	29	94.	22
74.	29	95.	21
75.	29	96.	21

Appendix IV

Item Analysis Summary Sheet

Items	Scores			E _{1.3} (Discriminat- ing Index)	Diffi- culty Value	Accepted/ Rejected
	Upper Group	Middle Group	Lower Group			
1.	26	25	20	.19	73.9	Acc.
2.	26	18	8	.56	54.2	Acc.
3.	4	4	0	.13	8.3	Rej.
4.	10	6	1	.28	17.8	Acc.
5.	29	26	20	.28	78.1	Acc.
6.	24	10	9	.47	44.8	Acc.
7.	20	17	13	.22	52.1	Acc.
8.	10	7	5	.16	22.9	Acc.
9.	19	16	11	.25	47.9	Acc.
10.	6	7	9	-.09	22.9	Rej.
11.	26	22	13	.41	63.5	Acc.
12.	9	8	10	-.03	28.1	Rej.
13.	17	8	6	.34	32.3	Acc.
14.	28	22	20	.25	72.9	Acc.
15.	9	6	3	.19	18.8	Acc.
16.	19	12	8	.34	40.6	Acc.
17.	4	4	2	.06	10.4	Rej.
18.	31	28	20	.34	82.3	Acc.
19.	21	14	14	.22	51.04	Acc.
20.	11	6	4	.22	21.9	Acc.
21.	6	2	1	.16	9.4	Rej.
22.	28	24	15	.41	69.8	Acc.
23.	8	3	5	.09	16.7	Rej.
24.	13	5	4	.28	22.9	Acc.
25.	17	10	4	.41	32.3	Acc.
26.	29	30	29	0	91.7	Rej.
27.	31	32	23	.25	89.6	Rej.
28.	31	30	21	.31	85.4	Rej.
29.	29	25	21	.25	78.1	Acc.
30.	24	18	15	.28	59.4	Acc.
31.	20	15	12	.25	48.9	Acc.
32.	4	7	3	.03	14.6	Rej.
33.	8	9	10	-.06	28.1	Rej.
34.	10	5	7	.09	22.9	Rej.
35.	23	21	21	.06	67.7	Acc.
36.	31	26	27	.13	87.5	Acc.
37.	0	2	3	-.09	5.2	Rej.
38.	13	11	7	.19	32.3	Acc.
39.	29	16	12	.53	59.4	Acc.
40.	26	23	25	.03	77.1	Acc.
41.	32	32	30	.06	97.9	Rej.
42.	32	31	30	.06	96.9	Rej.
43.	30	27	22	.25	82.3	Acc.
44.	22	16	3	.59	42.7	Acc.
45.	31	32	30	.03	96.9	Rej.

Items	Scores			E _{1.3} (Discriminat- ing Index)	Diffi- culty Value	Accepted/ Rejected
	Upper Group	Middle Group	Lower Group			
46.	25	27	25	0	80.2	Rej.
47.	23	15	17	.19	57.3	Acc.
48.	14	0	0	.44	14.6	Rej.
49.	2	0	0	.06	2.1	Rej.
50.	9	1	0	.28	10.4	Rej.
51.	28	26	13	.47	69.8	Acc.
52.	19	13	6	.41	39.6	Acc.
53.	24	12	4	.62	41.7	Acc.
54.	15	5	3	.38	23.9	Acc.
55.	1	0	0	.03	1.04	Rej.
56.	16	4	3	.41	23.9	Acc.
57.	6	0	0	.19	6.3	Rej.
58.	15	6	1	.44	22.9	Acc.
59.	0	0	0	0	0	Rej.
60.	28	24	23	.16	78.1	Acc.
61.	26	18	10	.50	56.3	Acc.
62.	1	1	1	.0	3.1	Rej.
63.	19	17	18	.03	56.3	Rej.
64.	26	19	14	.38	61.5	Acc.
65.	7	4	1	.19	12.5	Rej.
66.	7	1	1	.19	9.3	Rej.
67.	24	19	8	.50	53.1	Acc.
68.	3	1	0	.09	4.2	Rej.
69.	10	13	8	.06	32.3	Rej.
70.	24	27	24	.0	78.1	Rej.
71.	8	5	5	.09	18.8	Rej.
72.	1	0	0	.03	1.04	Rej.
73.	9	4	3	.19	16.7	Acc.
74.	10	7	3	.22	20.8	Acc.
75.	10	2	3	.22	15.6	Acc.
76.	29	29	23	.19	84.4	Acc.
77.	9	1	1	.25	11.5	Rej.
78.	5	6	0	.16	11.5	Rej.
79.	4	1	0	.13	5.2	Rej.
80.	26	21	19	.22	69.8	Acc.
81.	3	5	3	0	11.5	Rej.
82.	13	2	0	.41	15.6	Rej.
83.	16	8	4	.38	29.2	Acc.
84.	27	23	17	.31	69.8	Acc.
85.	3	0	0	.09	3.1	Rej.
86.	0	0	0	0	0	Rej.
87.	16	15	5	.34	37.5	Acc.
88.	12	4	0	.38	16.7	Acc.
89.	23	22	20	.09	67.7	Rej.
90.	15	3	0	.47	18.8	Acc.

सामान्य ज्ञान परीक्षा

नीचे की पंक्तियों में अपना नाम, जन्म तिथि आदि साफ़ साफ़ लिखिए ।

- (१) नाम.....
- (२) जन्म तिथि.....
- (३) कक्षा.....
- (४) पाठशाला
- (५) दिनांक.....

अब आगे पढ़िए :—

- (१) इस कापी में लिखे प्रश्नों का ठीक ठीक उत्तर जल्दी से जल्दी देने का प्रयत्न कीजिए ।
- (२) यदि आप किसी प्रश्न का उत्तर देने में असमर्थ हों तो रुकिये नहीं, वे प्रश्न कीजिए जो आपको आते हों ।
- (३) अनुमान मत लगाइये । जो प्रश्न न आते हों उन्हें छोड़ दीजिए ।
- (४) प्रश्न पत्र का उत्तर देने के बाद इस प्रश्न पत्र को वापिस दे दीजिए ।

जब तक कहा न जाए इस पन्ने को मत उलटिए ।



भाग १

(घ) नीचे कुछ प्रश्न या वाक्य दिये गये हैं और हर एक के नीचे चार-चार उत्तर दिये गये हैं। उनमें जो सही उत्तर हो उसके पहले दिये गये खाने में सही (✓) का निशान लगा दीजिए।

उदाहरण—

भाप के इंजन का अविष्कार किस ने किया ?

- (✓) जार्ज स्टेफेन्सन
- () अब्राहम लिंकन
- () आर्किमिडीज
- () जगदीश चन्द्र बोस

—:०:—

१. दूर की वस्तुओं को समीप देखने के लिए हम निम्नलिखित वस्तुओं में किस का प्रयोग करते हैं ?

- () प्रिज्म
- () शीशे की नाली
- () सूक्ष्म दर्शक यंत्र
- () दूरदर्शक यंत्र

२. वह कौन भारतीय है जिसको साहित्य में नोबेल पुरस्कार मिला है ?

- () सी० वी० रमन
- () जय शंकर प्रसाद
- () रवीन्द्र नाथ
- () रामधारी सिंह दिकर

३. मताधिकार (वोट देने) के लिए कम से कम कितनी आयु आवश्यक है ?

- () १८ वर्ष
- () २१ वर्ष
- () २५ वर्ष
- () ३० वर्ष

४. चितरंजन का कारखाना क्या बनाने के लिए प्रसिद्ध है ?

- () कपड़ा
- () रेल के इंजन
- () मोटर कार
- () साइकिल

५. रेडियो का अविष्कार किसने किया था ?

- () ऐडिसन
- () मारकोनी
- () अयन्सटायन
- () आर्किमिडीज

६. राष्ट्रपति राधाकृष्णन ने जून १९६३ में किन-किन विदेशों की यात्रा की ?

- () इंग्लैंड तथा अमेरिका
- () रूस तथा अफगानिस्तान
- () नेपाल तथा चीन
- () सीलीन तथा पाकिस्तान

७. फरवरी १९६४ में कितने दिन होंगे ?

- () २८
- () २९
- () ३०
- () ३१

८. किन अवसरों पर राष्ट्रीय झंडा सरकारी इमारतों पर झुका दिया जाता है ?

- () देश में अन्तर विद्रोह
- () सरकारी पार्टी की चुनाव में हार
- () किसी महान व्यक्ति की मृत्यु
- () बाहरी शत्रु का आक्रमण

९. जब सैन्टीमेट्र थर्मामीटर बर्फ के मध्य में रखा जाये तो उसका तापमान क्या होगा ?

- () 20°C
- () 40°C
- () 100°C
- () 0°C

१०. चीन ने भारत पर पिछले वर्ष किस महीने में आक्रमण किया था ?

- () अप्रैल
- () जुलाई
- () अक्टूबर
- () दिसम्बर

११. पहली स्त्री जिसने अन्तरिक्ष यात्रा की वह किस देश की रहने वाली थी ?

- () अमेरिका
- () इंग्लैंड
- () फ्रांस
- () रूस

१२. भारत में विधान कौन बनाता है ?

- () प्रधान मन्त्री
- () राष्ट्रपति
- () सुपरीम कोर्ट
- () संसद

१३. भारत में वायुयान कहाँ बनाये जाते हैं ?

- () कलकत्ता
- () बम्बई
- () बंगलौर
- () मद्रास

१४. लोक सभा के स्पीकर का क्या नाम है ?

- () डा० जाकिर हुसैन
- () सरदार हुक्म सिंह
- () अनन्त सायनम अयंगर
- () पंडित नेहरू

१५. इनमें भारत नाट्यम में कौन निपुण है ?

- () मीना कुमारी
- () माला सिन्हा
- () नरगिस
- () विजयन्तीमाला

१६. निम्नलिखित घटनाओं में सर्वप्रथम कौन सी हुई ?

- () पानीपत की तीसरी लड़ाई
- () संसार का द्वितीय महायुद्ध
- () संयुक्त राष्ट्र की स्थापना
- () महात्मा गाँधी का स्वर्गवास

१७. सिलाई की मशीन का आविष्कारक कौन है ?

- () एडीसन
- () सिगर
- () सी० बी० रमन
- () गेलीलियो

१८. आपने नारी कंट्रैक्टर का नाम किस संबंध में सुना है ?

- () हाकी
- () फुटबाल
- () बैडमिन्टन
- () क्रिकेट

१९. द्वितीय महायुद्ध किस सन् में समाप्त हुआ ?

- () १९१४
- () १८१८
- () १९३९
- () १९४५

२०. १०० रुपये का सनीगार्डर भेजते समय डाकखाने वाले कितनी कमीशन काटते हैं ?

- () एक रुपया
- () डेढ़ रुपया
- () दो रुपये
- () द्वाँई रुपये

२१. इनमें से किस बात पर न्यायालय में मुकद्दमा चलाया जा सकता है ?

- () कम्युनिस्ट पार्टी में सम्मिलित होने पर
- () दफ्तर १४४ के विरोध करने पर
- () स्कूल के पास सिनेमा घर बनाने पर
- () कर के कारण राज्य की निन्दा करने पर

२२. कोडक ट्रेड मार्क का किस वस्तु से सम्बन्ध है ?

- () फ़्लैशलैट
- () फ़ोटोग्राफी
- () मोटर साइकिल
- () घड़ी

२३. रक्त परिभ्रमण का ज्ञान सर्व प्रथम किसने कराया ?

- () हैनरी फोर्ड
- () व्हाइट
- () जॉन हार्वे
- () बेंजमिन फ्रॉकलिन

२४. सिन्ध्री के सरकारी कारखाने में इनमें से कौन सी वस्तु बनती है ?

- () एल्यूमिनियम
- () लोहा तथा फ़ौलाद
- () सीमेंट
- () रसायनिक खाद

२५. रामानुजम ने किस विषय में विशेष कार्य किया है ?

- () वनस्पति विज्ञान
- () जीव विज्ञान
- () गणित
- () कौमोस्ट्री

२६. वर्ष का सब से बड़ा दिन कौन सा होता है ?

- () २५ दिसम्बर
- () ३० मई
- () २१ जून
- () ३० जुलाई

२७. अगली बार अन्तराष्ट्रीय ओलम्पिक खेल कहाँ होंगे ?

- () भारत
- () जापान
- () इटली
- () आस्ट्रेलिया

- (ब) नीचे दो लोकोत्तिर्था, (मुहावरे) दिये गये हैं। प्रत्येक के नीचे चार-चार अर्थ दिये गये हैं। उनमें से सही अर्थ पर पहले दिए हुए खाने में सही (✓) का सकेत लगा दीजिए।

उदाहरण—

आँख दिखाना

- () खुश होना
(✓) गुस्सा होना
() अफ़सोस करना
() रोने लगना

२८. दातों तले उंगली दबाना

- () हैरान होना
() अपने आपको कष्ट देना
() घबड़ाना
() डरना

२९. कसौटी पर कसना

- () काम करवाना
() तंग करना
() रिश्ता देना
() परीक्षा लेना



भाग २

नीचे कुछ वाक्य दिये गये हैं। प्रत्येक वाक्य में एक रेखा खिंची हुई है इस रेखा के ऊपर उचित शब्द लिखिये।

उदाहरण—

एक रेडियो सैट की वार्षिक लाईसेंस फीस रुपये होती है।

३०. जो खाँस हम लेते हैं उसमें गैस हमारे शरीर के लिए आवश्यक है।

३१. उस नेपाली व्यक्ति का नाम है जो १९५३ में एवरेस्ट पर्वत की चोटी पर चढ़ा था।

३२. पृथ्वी अपनी घुरि पर घण्टे में एक बार घूम जाती है।

३३. ऊँट की मरुस्थल का कहते हैं।

३४. भारत के सब से बड़े बाँध का नाम है।

३५. झाँसी की रानी का नाम जिसने अंग्रेजों का वीरता से मुकाबिला किया था.....था ।

३६. एक गज एक मीटर के मुकाबिले में लम्बाई में.....होता है ।

३७. भारतीय फिल्म गंगा जमना का हीरो.....था ।

३८. भूदान आन्दोलन के नेता का नाम है ।

३९. कम्युनिस्ट चीन की राजधानी.....है ।

४०. मुरादाबाद.....के काम के लिए प्रसिद्ध है ।

४१. अमरीका की खोजने लगाई ।

४२. सोडा वाटर की बोतल खोलने पर जो गैस बाहर निकलती है उसका नाम..... है ।

४३. पिछली बार जनगणना सन्में हुई थी ।

४४. अमेरिका का डालर भारत के लगभग..... रुपये के बराबर होता है ।

४५. अगली ओलम्पिक अन्तरराष्ट्रीय प्रतियोगिता सन्.....में होगी ।

४६. ब्रिटेन के प्रधान मन्त्री का नाम श्री.....है ।

४७. उस यंत्र का नाम जिससे तूफान आने का संकेत मालूम होता है.....है ।

४८. भारत के विधानानुसार आगामी आम चुनाव सन्.....में होगा ।

४९. मुगल साम्राज्य का अन्तिम राजा था ।

५०. जब सूर्य चन्द्रमा और पृथ्वी एक ही सीध में होती है तो.....होता है ।

APPENDIX XVI

SCORING KEY

Part I

- | | | |
|-----------|-----------|------------------|
| 1. (iv) | 24. (iv) | 46. Macmillan |
| 2. (iii) | 25. (iii) | 47. Barometer |
| 3. (ii) | 26. (iii) | 48. 1967 |
| 4. (ii) | 27. (ii) | 49. Bah-dur Shah |
| 5. (ii) | 28. (i) | 50. Surya |
| 6. (i) | 29. (iv) | Graham |
| 7. (ii) | | (solar |
| 8. (iii) | | eclipse) |
| 9. (iv) | | |
| 10. (iii) | | |
| 11. (iv) | | |
| 12. (iv) | | |
| 13. (iii) | | |
| 14. (ii) | | |
| 15. (iv) | | |
| 16. (i) | | |
| 17. (ii) | | |
| 18. (iv) | | |
| 19. (iv) | | |
| 20. (ii) | | |
| 21. (ii) | | |
| 22. (ii) | | |
| 23. (iii) | | |

Part II

30. Oxygen
31. Tensing
32. 24
33. Janaz (ship)
34. Bhakra
35. Lakshmi Bai
36. Chhotz (short)
37. Dilip Kumar
38. Vinoba Bhave
39. Peking
40. Bartonon (vessels)
41. Columbus
42. Carbon dioxide
43. 1961
44. Paanch (five)
45. 1964

Appendix VII

Scores of Pupils on General Information and Intelligence Tests.

Boys Class IX

<u>S. No.</u>	<u>Score in Gen. Information</u>	<u>Score in Intelligence</u>	<u>S. No.</u>	<u>Score in Gen. Information</u>	<u>Score in Intelligence</u>
1.	26	75	46.	13	33
2.	28	45	47.	30	50
3.	27	53	48.	20	17
4.	30	52	49.	19	31
5.	29	59	50.	15	29
6.	27	67	51.	25	59
7.	33	68	52.	23	51
8.	24	32	53.	22	43
9.	27	44	54.	16	10
10.	31	55	55.	25	26
11.	35	74	56.	34	34
12.	22	55	57.	20	52
13.	28	56	58.	29	45
14.	26	50	59.	22	24
15.	30	61	60.	24	59
16.	29	39	61.	10	40
17.	34	41	62.	15	33
18.	29	47	63.	21	82
19.	30	78	64.	18	30
20.	25	44	65.	23	22
21.	37	74	66.	11	28
22.	30	53	67.	22	39
23.	27	48	68.	18	10
24.	34	42	69.	8	24
25.	32	67	70.	19	28
26.	43	73	71.	16	32
27.	21	57	72.	21	23
28.	33	74	73.	30	34
29.	31	65	74.	21	23
30.	28	45	75.	23	52
31.	26	57	76.	12	24
32.	27	68	77.	22	19
33.	31	56	78.	26	36
34.	31	70	79.	28	41
35.	40	75	80.	8	23
36.	24	39	81.	9	15
37.	35	56	82.	21	47
38.	23	49	83.	19	15
39.	18	29	84.	15	4
40.	17	36	85.	13	36
41.	19	37	86.	15	28
42.	17	32	87.	20	34
43.	10	5	88.	8	61
44.	22	31	89.	23	24
45.	24	41	90.	23	46

Appendix VII (continued)Boys class IX

S.No.	Score in Gen. Information	Score in Intelligence
91.	19	31
92.	31	53
93.	31	50
94.	16	25

Girls class IX

95.	27	40
96.	23	61
97.	26	38
98.	23	63
99.	18	57
100.	16	61
101.	25	30
102.	9	33
103.	24	60
104.	26	47
105.	28	38
106.	25	50
107.	30	39
108.	23	60
109.	20	40
110.	28	63
111.	18	31
112.	27	61
113.	21	56
114.	26	55
115.	25	69
116.	23	47
117.	25	45
118.	20	48
119.	10	24
120.	17	52
121.	23	32
122.	11	20
123.	29	70
124.	16	26

~~125x~~Boys class X

125.	19	39
126.	32	34
127.	17	23
128.	21	21
129.	24	52
130.	26	28
131.	24	25
132.	23	41
133.	25	23
134.	21	21
135.	30	49

S. No.	Score in Gen. Information	Score in Intelligence
136.	25	48
137.	28	39
138.	20	35
139.	34	17
140.	20	27
141.	29	77
142.	24	46
143.	34	63
144.	10	14
145.	23	37
146.	24	48
147.	26	46
148.	29	26
149.	22	25
150.	24	56
151.	21	21
152.	26	48
153.	25	50
154.	26	68
155.	24	48
156.	22	51
157.	13	23
158.	21	50
159.	19	13
160.	20	26
161.	36	42
162.	7	18
163.	24	28
164.	17	27

Girls class X

165.	17	6
166.	27	59
167.	20	36
168.	20	41
169.	23	47
170.	21	46
171.	18	52
172.	23	41
173.	31	64
174.	12	53
175.	21	44
176.	20	14
177.	20	36
178.	23	45
179.	16	21
180.	27	53
181.	30	46
182.	25	35
183.	18	25
184.	13	24

<u>S.No.</u>	<u>Score in Gen. Information</u>	<u>Score in Intelligence</u>
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Girls class X (continued)

185.	18	28
186.	17	62
187.	21	42
188.	24	46
189.	21	22
190.	13	27
191.	20	46
192.	27	49
193.	21	49
194.	28	42
195.	19	36
196.	18	48
197.	18	28
198.	25	48
199.	27	50

Boys Class XI

200.	25	48
201.	16	53
202.	31	43
203.	18	49
204.	27	44
205.	24	38
206.	31	62
207.	28	46
208.	24	39
209.	32	65
210.	37	55
211.	14	50
212.	24	44
213.	20	41
214.	17	54
215.	29	62
216.	28	54
217.	39	55
218.	22	45
219.	26	46
220.	30	58
221.	31	51
222.	36	60
223.	19	56
224.	24	43
225.	16	54
226.	30	52
227.	20	37

Girls class XI

228.	22	60
229.	26	48

<u>S. No.</u>	<u>Score in Gen. Information</u>	<u>Score in Intelligence</u>
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230.	23	60
231.	25	48
232.	24	56
233.	39	69
234.	25	58
235.	22	61
236.	33	58
237.	23	39
238.	25	59
239.	29	66
240.	30	76
241.	24	32
242.	33	56
243.	34	48
244.	22	50
245.	19	45
246.	26	61
247.	20	43
248.	20	59
249.	19	65
250.	25	50
251.	23	40
252.	28	53
253.	18	36
254.	38	51
255.	23	34
256.	24	60
257.	24	39
258.	30	52
259.	20	50
260.	23	48
261.	26	57
262.	33	37
263.	26	38

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